DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

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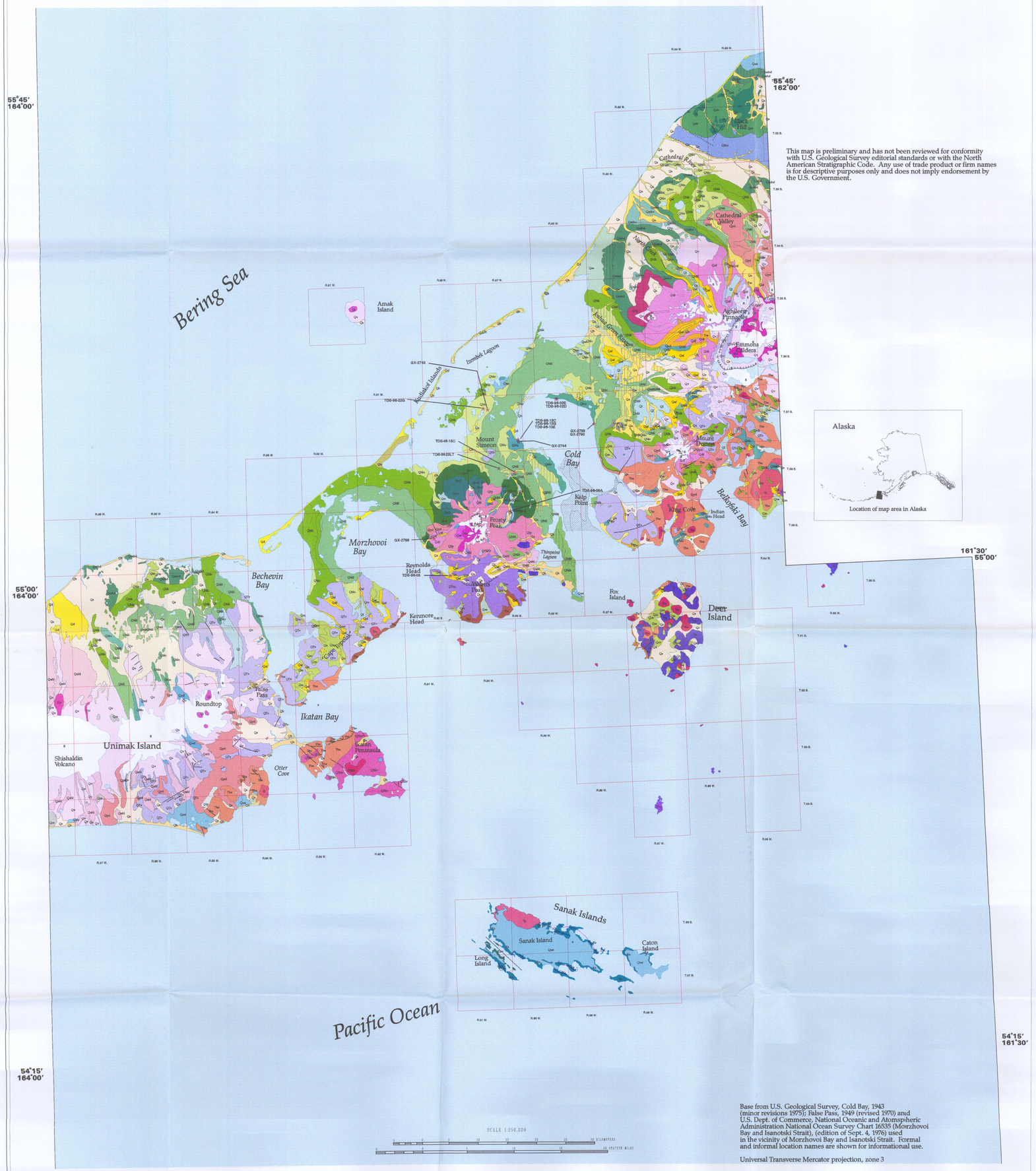


This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade product or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

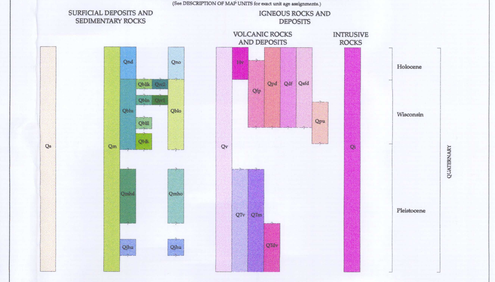
Base from U.S. Geological Survey, Cold Bay, 1943 (minor revisions 1975); False Pass, 1949 (revised 1970) and U.S. Dept. of Commerce, National Oceanic and Atomspheric Administration National Ocean Survey Chart 16535 (Morzhovoi Bay and Isanotski Strait), (edition of Sept. 4, 1976) used in the vicinity of Morzhovoi Bay and Isanotski Strait. Formal and informal location names are shown for informational use.

Universal Transverse Mercator projection, zone 3

Geologic station locations in the Cold Bay and False Pass quadrangles, Alaska
Scale 1:1,000,000

CORRELATION OF QUATERNARY MAP UNITS

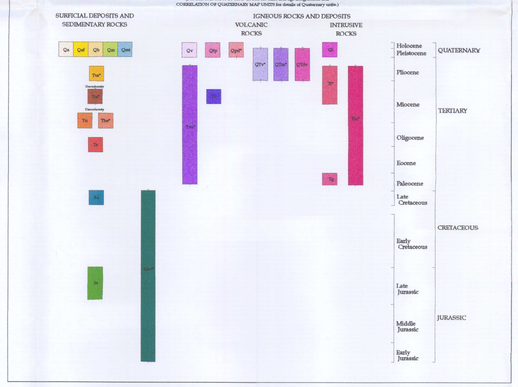
(See DESCRIPTION OF MAP UNITS for exact unit age assignments.)

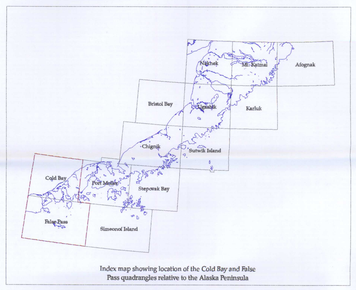


Unit Qs as shown here also includes units Qa, Qaf, Qc, Qls, Ql, Qb, Qes, Qmt, and Qd

CORRELATION OF MAP UNITS

(See DESCRIPTION OF MAP UNITS for exact unit age assignments and CORRELATION OF QUATERNARY MAP UNITS for details of Quaternary units.)





Index map showing location of the Cold Bay and False Pass quadrangles relative to the Alaska Peninsula

MAP SYMBOLS*

* See description of map units for full unit descriptions

SURFICIAL DEPOSITS AND SEDIMENTARY ROCKS
Quaternary

- Qs Surficial deposits, undivided (Holocene and Pleistocene)
- Qa Alluvium
- Qaf Alluvial fan deposits
- Qc Colluvium
- Qls Landslide and slump deposits
- Ql Lacustrine deposits
- Qb Beach deposits
- Qes Estuarine deposits
- Qmt Marine terrace deposits
- Qd Dune deposits
- Qm Moraine (undifferentiated)
- Qnd Neoglacial drift
- Qno Neoglacial outwash deposits
- Qrc2 Russell Creek glaciation II
- Qrc1 Russell Creek glaciation I
- Qblu Drift, undivided, Brooks Lake glaciation
- Qblik Drift, Iliuk Stade, Brooks Lake glaciation
- Qbln Drift, Newhalen Stade, Brooks Lake glaciation
- Qbli Drift, Iliamna Stade, Brooks Lake glaciation
- Qblk Drift, Kvichak Stade, Brooks Lake glaciation
- Qblo Outwash deposits, Brooks Lake glaciation
- Qmhd Drift, Mak Hill glaciation
- Qmho Outwash deposits, Mak Hill glaciation
- Qjhu Deposits of the Johnston Hill glaciation
- Qsb Scoured bedrock

Tertiary

- Tvs Volcanic sedimentary rocks and agglomerate (Pliocene?)
- Tta Tachilni Formation (late Miocene)
- Tu Unga Formation (middle Miocene to late Oligocene)
- Tbe Belkofski Formation (middle Miocene? to late Oligocene?)
- Ts Stepovak Formation (early Oligocene and late Eocene)

Cretaceous

- Ks Shumagin Formation (Late Cretaceous; Maestrichtian)

Cretaceous and/or Jurassic?

- KJcv Chert and volcanic sequence

Jurassic

- Jn Naknek Formation, undivided (Late Jurassic)

IGNEOUS ROCKS
Volcanic rocks and deposits
Quaternary

- Qv Volcanic rocks, undivided
- Hv Holocene volcanic rocks
- Qfp Frosty Peak volcanic rocks
- Qpd Pyroclastic and debris-flow deposits, undivided
- Qav Volcanic avalanche deposits
- Qafd Ash-flow and ash-fall deposits
- Qdf Volcanic debris-flow deposits
- Qvg Volcanoglacial debris-flow deposit
- Qtp Thin ash cover over adjacent units
- Qcs Cinder and spatter cone deposits

Quaternary and/or Tertiary

- QTv Volcanic rocks (Quaternary and Pliocene?)
- QTm Morzhovoi Volcanics (early Quaternary?, Pliocene, and late Miocene?)
- QTdv Volcanic breccia proximal to Dora Peak (Quaternary?, Pliocene?, and late Miocene?)

Tertiary

- Tvu Volcanic rocks, undivided (Tertiary)
- Tv Volcanic rocks (late Miocene)

Intrusive rocks
Quaternary

- Qi Intrusive rocks (Holocene and Pleistocene)
- Qvd Dacitic to rhyolitic domes

Tertiary

- Ti Intrusive rocks (Pliocene and late Miocene)
- Tiu Intrusive rocks, undivided (Tertiary)
- Tg Granodiorite (Paleocene)

Other map units

- g Ice fields or glaciers
- Water (lakes, ocean)
- Altered zones
- Marine innudated areas
- Less than 3 fathom depth
- Between 3 and 5 fathom depth
- Between 5 and 10 fathom depth

LINE AND POINT SYMBOLS

- Stratigraphic contacts -- Certain
- Stratigraphic contacts -- Approximate
- Stratigraphic contacts -- Inferred, queried
- Stratigraphic contacts -- Concealed
- Internal unit contacts
- Faults -- Certain
- Faults -- Approximate
- Faults -- Inferred, queried
- Faults -- Concealed
- Fold axes -- Certain
- Fold axes -- Approximate
- Fold axes -- Inferred, queried
- Lineaments
- Caldera or crater rim
- Shorelines
- Ice contacts
- Radiocarbon date sample localities
- 1:63,360-scale quadrangle corner tics

Revised geologic map of the Cold Bay and False Pass quadrangles, Alaska Peninsula, Alaska

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